

# Comparing the Value of Nonprofit Hospitals' Tax Exemption to Their Community Benefits

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## Abstract

The tax-exempt status of nonprofit hospitals has received increased attention from policymakers interested in examining the value they provide instead of paying taxes. We use 2012 data from the Internal Revenue Service (IRS) Form 990, Centers for Medicare and Medicaid Services (CMS) Hospital Cost Reports, and American Hospital Association's (AHA) Annual Survey to compare the value of community benefits with the tax exemption. We contrast nonprofit's total community benefits to what for-profits provide and distinguish between charity and other community benefits. We find that the value of the tax exemption averages 5.9% of total expenses, while total community benefits average 7.6% of expenses, incremental nonprofit community benefits beyond those provided by for-profits average 5.7% of expenses, and incremental charity alone average 1.7% of expenses. The incremental community benefit exceeds the tax exemption for only 62% of nonprofits. Policymakers should be aware that the tax exemption is a rather blunt instrument, with many nonprofits benefiting greatly from it while providing relatively few community benefits.

## Keywords

hospitals, nonprofit status, community benefits, health care policy, health economics

## Background

Approximately 60% of community hospitals in the United States are nonprofit hospitals. The value to a nonprofit hospital of being granted 501(c)(3) status by the Internal Revenue Service (IRS) includes both the direct benefits of being exempt from various federal, state, and local taxes and the indirect benefits of receiving charitable donations and issuing tax-exempt bonds. Sara Rosenbaum and colleagues estimated the value of the nonprofit hospital tax exemption to be \$24.6 billion in 2011.<sup>1</sup>

There is an expectation that nonprofits provide sufficient community benefit to justify their tax-exempt status. Policymakers and analysts over the past decade have increasingly voiced concerns that nonprofits were not meeting this standard and there have been numerous high-profile examples of nonprofits being sued over minimal community benefits.<sup>2,3</sup> However, there has not been a systematic comparison of the value of the tax exemption to the community benefit for a national sample of hospitals. One possible reason is that hospitals have determined their community benefits in different ways.<sup>4,5</sup> For example, some hospitals historically assessed the value of their charity care at full charges, but it is commonly recognized that few insurers actually pay the full charges.

To collect comparable data, the IRS has recently developed new rules that hospitals are required to follow when reporting their community benefits. The IRS identified 8 specific categories of community benefits and, as of 2009, required reporting on Schedule H of Form 990 through its Hospital Compliance Project. A January 2015 IRS report to Congress estimated the net expenditures on all nonprofit community benefit activities to be \$62.4 billion in 2011.<sup>6</sup> Gary Young and colleagues examined these IRS 990 data and estimated that about 25% of the community benefits categorized by the IRS are charity care and 45% are unreimbursed costs for means-tested programs, with the remainder split across multiple other categories.<sup>7</sup>

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While this estimate of \$62.4 billion in community benefits exceeds the \$24.6 billion in foregone taxes from the nonprofit exemption, these aggregate amounts raise the question of how much variation across individual nonprofits in the US exists. As the court cases (cited earlier<sup>2,3</sup>) suggest, some hospitals might receive tax exclusions in excess of their community benefits. Moreover, as the Congressional Budget Office (CBO) has documented, investor-owned for-profit hospitals also provide these community benefits, albeit in amounts smaller than those provided by nonprofits.<sup>4</sup> As such, some have suggested that for-profits serve as a benchmark from which one should focus on “incremental” community benefits from nonprofits relative to for-profits when considering what the tax exemption is worth to taxpayers.<sup>2,8</sup> Finally, as we suggest below, some of the categories other than charity care on the IRS list of 8 categories might provide additional benefits to the hospital itself as marketing efforts and therefore be self-serving for the hospital.

For these reasons, we compile hospital-level data for 2012 from the IRS Form 990, the Centers for Medicare and Medicaid Services (CMS) Hospital Cost Reports (HCR), and the American Hospital Association’s (AHA) Annual Survey to quantify community benefits, the incremental community benefits for nonprofits relative to for-profit hospitals, and the components to the nonprofit tax exclusion, focusing on each one of these as a percent of that hospital’s total expenses. We then compare community benefits and tax exemption, reporting on the distribution across hospitals for several different approaches for conceptualizing relevant community benefits. Finally, we attempt to identify the characteristics of the hospitals that do not provide benefits exceeding their tax exemption. Our results indicate that, on average, the amount of incremental community benefits is comparable to the value of the tax exemption, but there is considerable variation across nonprofit hospitals in both the amount of community benefits provided and the value of their tax exemption with little correlation between the two amount, so that there are many hospitals whose community benefits are less than their tax exemption. Moreover, we find that the extent to which a hospital’s community benefits exceed the tax exemption is explained by relatively few hospital and market characteristics.

### Data for Nonprofit Hospitals

The primary data source for nonprofit community benefits is the information reported to the IRS on Form 990 and compiled by GuideStar in 2012. We linked these IRS data to AHA data and the CMS-HCR data to produce individual hospital estimates of the nonprofit tax exemption. Our analysis is therefore limited to the subset of nonprofit hospitals that can be linked between the IRS 990, AHA, and CMS-HCR samples. Starting with a sample of 2457 nonprofit hospitals in the AHA survey, 2363 nonprofits in the CMS-HCR data, and 2298 nonprofits in the IRS data, we used various

combinations of the hospital name, address, city, and zip code to identify a sample of 2004 nonprofits that could be linked across each of the 3 databases. (While the Medicare Provider Numbers are available in the CMS and AHA data, they are not available in the IRS data. Similarly, while the IRS Tax Employer Identification Numbers (EINs) are available in the IRS 990 data, they are not available in the CMS or AHA data.) Missing or illogical data for any of the measures described below reduced the size of sample down to 1648 nonprofits for 2012. When we examined the characteristics of hospitals that did not match, only hospital size was associated with the likelihood of a successful merge or non-missing data (smaller hospitals were less likely to match).

An additional complication with the data for community benefits is that a small number of hospital systems (comprising a total of 267 hospitals) reported aggregate system-wide community benefits across all of its hospitals to the IRS rather than having reported each individual hospital’s community benefits separately, as most hospital systems did. Because we are interested in hospital-level analyses rather than system-level analyses, and because we want to include the hospitals reporting system-level amounts, we disaggregated (when applicable) each system’s community benefit measure (from the IRS) into the individual hospitals’ measure based on the percentage of the hospital’s level of charity care reported in the CMS-HCR (where hospitals each report hospital-level information to CMS) for that hospital compared with all hospitals in that system.

### Net Community Benefit Expense

The IRS has identified 8 distinct categories of community benefits: (1) Charity care (financial assistance at cost) is the cost of free or discounted services to people meeting the hospital’s criteria for receiving financial assistance. (2) Unreimbursed costs from Medicaid is the difference between the hospital’s costs incurred for treating Medicaid patients and the payment received. (3) Unreimbursed costs from other means-tested programs is the difference between the hospital’s costs incurred for treating these patients and the payment received. (4) Community health improvement services and operations are the activities or programs, subsidized by the hospital, which have a goal of improving community health. (5) Unreimbursed health professions education is the cost incurred on training programs for being licensed to practice as a health professional. (6) Subsidized health services that are not means-tested are clinical services provided to patients despite causing a financial loss to the hospital after incorporating the payments received. (7) Unfunded research is any study or investigation with a goal of generating knowledge to the public. (8) Cash and in-kind contributions for community benefit are donations to other organizations to provide any of the 7 community benefits described above. Highlights of the definitions and portions of the instructions provided to hospitals on IRS Form 990’s

**Table 1.** Nonprofit Hospitals' Net Community Benefit Expense as a Percent of Total Expenses in 2012.

	Total amount	Incremental amount
Charity care	2.15% (SD = 2.01%) [0.0% to 14.9%]	1.68% (SD = 1.64%) [0.0% to 13.3%]
Unreimbursed costs from Medicaid	2.97% (SD = 3.02%) [0.0% to 23.0%]	1.79% (SD = 2.18%) [0.0% to 16.8%]
Unreimbursed costs from other means-tested programs	0.19% (SD = 0.84%) [0.0% to 14.7%]	0.16% (SD = 0.68%) [0.0% to 12.4%]
Community health improvement services and operations	0.33% (SD = 0.67%) [0.0% to 10.4%]	0.29% (SD = 0.60%) [0.0% to 8.8%]
Unreimbursed health professions education	0.53% (SD = 1.25%) [0.0% to 12.8%]	0.46% (SD = 1.16%) [0.0% to 12.8%]
Subsidized health services, not means-tested	1.20% (SD = 2.53%) [0.0% to 22.7%]	1.10% (SD = 2.33%) [0.0% to 19.0%]
Unfunded research	0.08% (SD = 0.64%) [0.0% to 15.5%]	0.08% (SD = 0.64%) [0.0% to 15.4%]
Cash and in-kind contributions for community benefit	0.17% (SD = 0.78%) [0.0% to 23.0%]	0.16% (SD = 0.74%) [0.0% to 23.0%]
Community benefits combined (percent)	7.63% (SD = 5.19%) [0.1% to 50.3%]	5.71% (SD = 4.34%) [0.0% to 40.4%]
Community benefits combined (millions of dollars)	\$21.9 (SD = \$46.3) [\$0.005 to \$869.8]	\$19.2 (SD = \$43.1) [\$0.004 to \$836.2]

Note. Standard deviations (denoted by "SD") are shown in parentheses, and the minimum-to-maximum range is shown in brackets. Data are from 1648 nonprofit hospitals in 2012 with information in the Internal Revenue Service Form 990, Centers for Medicare and Medicaid Service Hospital Cost Reports, and American Hospital Annual Survey. The methods for estimating incremental amounts (ie, the values for a nonprofit relative to a for-profit) are described in the text.

Schedule H are provided in Appendix A. One item to emphasize here from these instructions is that the definition for charity care explicitly excludes "bad debt" (defined as "uncollectible charges that the organization recorded as revenue but wrote off due to a patient's failure to pay"); many researchers have historically combined the two for a measure often termed "uncompensated care," but bad debt may result from inefficient management rather than an intended benefit to the community. Another item to emphasize is that hospitals are instructed by the IRS to apply cost-to-charge ratios to their charges to produce estimates of the costs of these health care services and then subtract payments received.

Table 1's left-side column shows the average net community benefit expenses as a percent of total expenses for nonprofits in our 2012 sample. The top shows the amounts for the 8 distinct categories separately, while the bottom shows the total combined across the 8 categories; this total equals 7.63% of total expenses (or \$21.9 million per hospital). Unreimbursed costs from Medicaid average 2.97% of total expenses and are the largest category. The second-largest category is charity care at 2.15%. The third-highest category is subsidized health services that are not means-tested at 1.2%. Section 9007 of the Affordable Care Act (ACA) requires hospitals to conduct community health needs assessments every 3 years; community health improvement services and operations is the fifth-highest category at 0.33%.

These relative magnitudes across the 8 categories for 2012 are consistent with those reported by Young and colleagues for 2011,<sup>7</sup> which indicates that our exclusions of hospitals without information merged from the AHA and CMS-HCR data is not introducing a bias. As noted above, there are concerns that some of these community benefit categories included in the IRS 990 Forms are too broad. We discuss this issue further below.

### Estimating Incremental Community Benefits Relative to For-Profits

As noted above, each of these community benefits provided by nonprofits are also generally provided by investor-owned for-profits. As a result, when one considers whether the nonprofit tax exemption is justified, it is important to focus on the "incremental" community benefits for nonprofits compared with for-profits. Because the IRS only collects these Form 990 data for nonprofits, we incorporate data from the CMS-HCR data to make these adjustments; CMS-HCR data collect community benefit data from both nonprofits and for-profits with relatively detailed instructions to apply cost-to-charge ratios to charges for health care services and subtract payments, so we do not expect differential practices in reporting health care service costs for nonprofits versus for-profits in the CMS-HCR data. To make this adjustment to nonprofits' total community benefits to calculate their incremental community benefits, we

first identified the community benefit measures in the CMS-HCR data (to the extent certain ones exist) and compared nonprofits' average community benefits as a percent of total expenses with for-profits' average community benefits as a percent of total expenses. We then use the results from that nonprofit vs for-profit comparison with the CMS-HCR data to make a downward adjustment (described below with an example) to the IRS data's community benefit amounts to produce an estimate of incremental community benefits.

Charity care is identified in CMS-HCR's Worksheet S-10 Line 23. As shown in Appendix B, the CMS-HCR data indicate that nonprofit charity care averaged 2.74% of expenses and that for-profit charity care averaged 0.60% of expenses in 2012. This implies that the average incremental amount of charity care provided by nonprofits is 78% of the total charity reported to the IRS  $((2.74 - 0.60) / 2.74)$ . Applying this downward adjustment to each of the hospitals in the linked data set reduces the total charity care from 2.15% of total expenses to 1.68% of total expenses. This incremental charity care amount is shown in Table 1's right-side column.

Other measures of community benefit are also available in both the IRS and CMS data. Unreimbursed costs from Medicaid are identified in CMS-HCR's Worksheet S-10 Line 8. The CMS-HCR data indicate that nonprofit unreimbursed Medicaid averaged 3.28% of expenses and that for-profit unreimbursed Medicaid averaged 1.38% in 2012. Applying this 58% adjustment to each of the hospitals in the linked data set reduces the total unreimbursed Medicaid from 2.97% of total expenses to an incremental amount of 1.79% in the IRS data. Unreimbursed costs from other means-tested programs are identified in CMS-HCR's Worksheet S-10 Lines 12 and 16. This amount averaged 0.88% for nonprofits and 0.10% for for-profits in the CMS-HCR data, yielding an 89% reduction from 0.19% to 0.16% for the IRS data.

Unreimbursed health professions education has no direct analog in the CMS-HCR data, but the ratio of nonprofit to for-profit spending on this category can be approximated by the total costs associated with interns and residents—specifically, CMS-HCR Cost Center Worksheet A's Lines 21 (for intern and resident salaries and fringes), 22 (for intern and resident's other costs), and 100 (intern and resident services). This amount averaged 1.71% for nonprofits and 0.28% for for-profits in the CMS-HCR data, yielding an 84% reduction from 1.20% to 1.10% for the IRS 990 data. Research is identified in CMS-HCR's Cost Center Worksheet A's Line 191, though this amount includes both funded and unfunded research in these CMS-HCR data. This amount averaged 0.70% for nonprofits and 0.01% for for-profits in the CMS-HCR data, yielding minimal reduction from 0.08% for the IRS data.

Finally, there is unfortunately no information in the CMS-HCR data directly relevant for community health improvement services and operations, subsidized health services that are not means-tested, or cash and in-kind contributions for community benefit. To generate incremental

community benefit estimates for these 3 categories in the IRS data, we use the weighted-average downward adjustments for the 5 community benefits described above for which there are relevant measures in the CMS-HCR data for both nonprofits and for-profits. This extrapolation approach is an important limitation to our analyses of these incremental community benefits, especially for subsidized services that are not means-tested (as the largest of these 3 categories).

Table 1's right-side column shows these estimates for incremental community benefits for the 8 categories identified in the IRS data. The community benefit category that showed the largest reduction is unreimbursed costs from Medicaid because nonprofits and for-profits provide relatively similar levels of Medicaid services. Each of the other changes is more modest.

### Estimating the Hospital's Valuation of the Nonprofit Tax Exemption

There are 6 categories of tax benefits to nonprofits. The first 4 are direct benefits of the nonprofit not paying the following taxes: federal corporate income tax, the state corporate income tax, state sales tax, and local property taxes. The next 2 are indirect benefits to the nonprofit resulting from lower federal individual income taxes: tax-exempt bond's lower rates and the tax subsidization of charitable contributions.

The federal corporate income tax exemption is essentially the amount of federal corporate taxes the nonprofit would pay if it were a for-profit instead. This equals the tax rate multiplied by the hospital's net income, though we set this value to zero if the hospital reports negative net income. For the purpose of calculating the tax amount, we assume that the nonprofit hospital would not change its net income if it became for-profit. On one hand, for-profit hospitals can actually carry losses forward or backward a year, which, all else equal, would ultimately yield a relatively lower value of being exempt from taxes, but on the other hand, a conversion from nonprofit to for-profit would likely increase net income, which, all else equal, would ultimately yield a relatively higher value of being exempt from taxes. We assume a federal tax rate of 33%, as the Tax Foundation reports that health care and social assistance corporations paid an average effective tax rate of 33% from 2003 to 2008.<sup>9</sup>

The state corporate income tax exemption is likewise the amount of state corporate taxes the nonprofit would pay if it were a for-profit, and is equal to the state tax rate multiplied by the hospital's net income (or zero if the hospital reports negative net income). To compute this amount, we applied the state corporate tax rate as reported by the Tax Foundation.<sup>10</sup>

The state sales tax exemption is the money nonprofits save on purchases of equipment and supplies if their state exempts these hospitals from paying sales taxes. To compute this amount (where applicable), we multiply the state's sales tax rate by the hospital's total facility supply expense from

**Table 2.** Nonprofit Hospitals' Value of the Tax Exemption as a Percent of Total Expenses in 2012.

	Total amount
Federal corporate income tax exemption	2.02% (SD = 3.28%) [0.0% to 74.9%]
State corporate income tax exemption	0.26% (SD = 0.45%) [0.0% to 7.1%]
State sales tax exemption	0.94% (SD = 3.23%) [0.0% to 50.9%]
Local property tax exemption	1.29% (SD = 4.26%) [0.01% to 57.0%]
Tax-exempt bond's lower rates	1.28% (SD = 4.88%) [0.0% to 82.1%]
Charitable contribution subsidization	0.07% (SD = 0.33%) [0.0% to 8.9%]
Tax exemption combined (percent)	5.87% (SD = 9.54%) [0.1% to 96.7%]
Tax exemption combined (millions of dollars)	\$11.3 (SD = \$21.50) [\$0.02 to \$243.1]

Note. Standard deviations (denoted by "SD") are shown in parentheses, and the minimum-to-maximum range is shown in brackets. Data are from 1648 nonprofit hospitals in 2012 with information in the Internal Revenue Service 990 Schedule H, Centers for Medicare and Medicaid Service Hospital Cost Reports, and American Hospital Annual Survey. The methods for estimating these amounts are described in the text.

the AHA Survey. The state sales tax exemptions for nonprofits are available from the Hilltop Institute,<sup>11</sup> and the state sales tax rates are from the Tax Foundation.<sup>12</sup>

The local property tax exemption is the money nonprofits would have to pay in local property taxes if they were a for-profit. Following the approach used by Sara Rosenbaum and colleagues, we first calculated an average ratio of property taxes to total revenue for for-profits in each state.<sup>1</sup> Data for property taxes paid by for-profits come from CMS-HCR Worksheet A-7, Part I, Column 13, and total revenue comes from CMS-HCR Worksheet G's Line 3. We then multiplied that state-specific average property tax rate to each nonprofit's total revenue (also from CMS-HCR Worksheet G3). We assumed that the nonprofit would not change its physical plant if it became for-profit.

The tax-exempt bond's savings equal the difference between the relatively lower interest rate for a tax-exempt bond and the relatively higher rate for the taxable bond. In other words, if a nonprofit could not issue tax-exempt bonds, it would have to pay a higher interest rate to investors to borrow money. To compute this value, we assumed that yield on tax-exempt bonds was 5.75%, based on Wells Fargo market research's 2011 range of 4.25% to 7.25%.<sup>13</sup> (This ignores variation in individual hospital's ratings and yields and the timing of the bond issuance.) We also assumed that investors would be subject to the federal marginal tax rate of 28%. This implies that an investor in this tax bracket would be indifferent between tax-exempt return of 5.75% and an

after-tax return of 7.99% ( $5.75\% / (1 - 0.28)$ ). This, in turn, implies that resulting cost savings to the nonprofit is therefore 2.24% ( $7.99\% - 5.75\%$ ) multiplied by the hospital's total bond amount (as reported at the end of the year in the IRS data).

The charitable contribution subsidization equals the extra charitable contributions nonprofits receive because of the federal personal income tax exemption for charitable giving. This is assumed to equal the price elasticity of charitable giving multiplied by the change in the price of charitable giving multiplied by the hospital's total charitable contributions received. CBO uses a price elasticity of  $-0.5$ .<sup>14</sup> The average marginal income tax rate for charitable givers is 32%,<sup>15</sup> so that for someone with a 32% marginal tax rate, the "price" of donating \$1 is \$0.68. Information on each hospital's charitable contributions received comes from CMS-HCR Worksheet G3 Line 6. About 52% of hospitals received a charitable donation, with an average amount of \$826 080.

Table 2 shows the average value of the tax exemption as a percent of total expenses for nonprofits in our 2012 sample. The top shows the amounts for the 6 distinct categories separately, while the bottom shows the total combined across the 6 categories; this total equals 5.87% of total expenses. This averages \$11.3 million per hospital. The federal corporate income tax exemption averages 2.02% of expenses and is the largest category. The next 2 largest categories are the local property tax exemption's average of 1.29% and the tax-exempt bond's lower rates' average of 1.28%. Next are the sales tax exemption of 0.94%, the state corporate income tax exclusion of 0.26%, and the charitable contribution subsidization of 0.07%.

As with the community benefit estimates, there is considerable variation across these hospitals, including whether hospitals benefit from some of the categories at all. For instance, about 75% of nonprofits benefit from the federal corporate income tax exemption (as 25% of hospitals reported no positive net income), 61% benefit from the state corporate income tax exemption (as some hospitals are in states with no state corporate income taxes), and 54% benefit from tax-exempt bonds financing. We provide more details about the distribution across hospitals below.

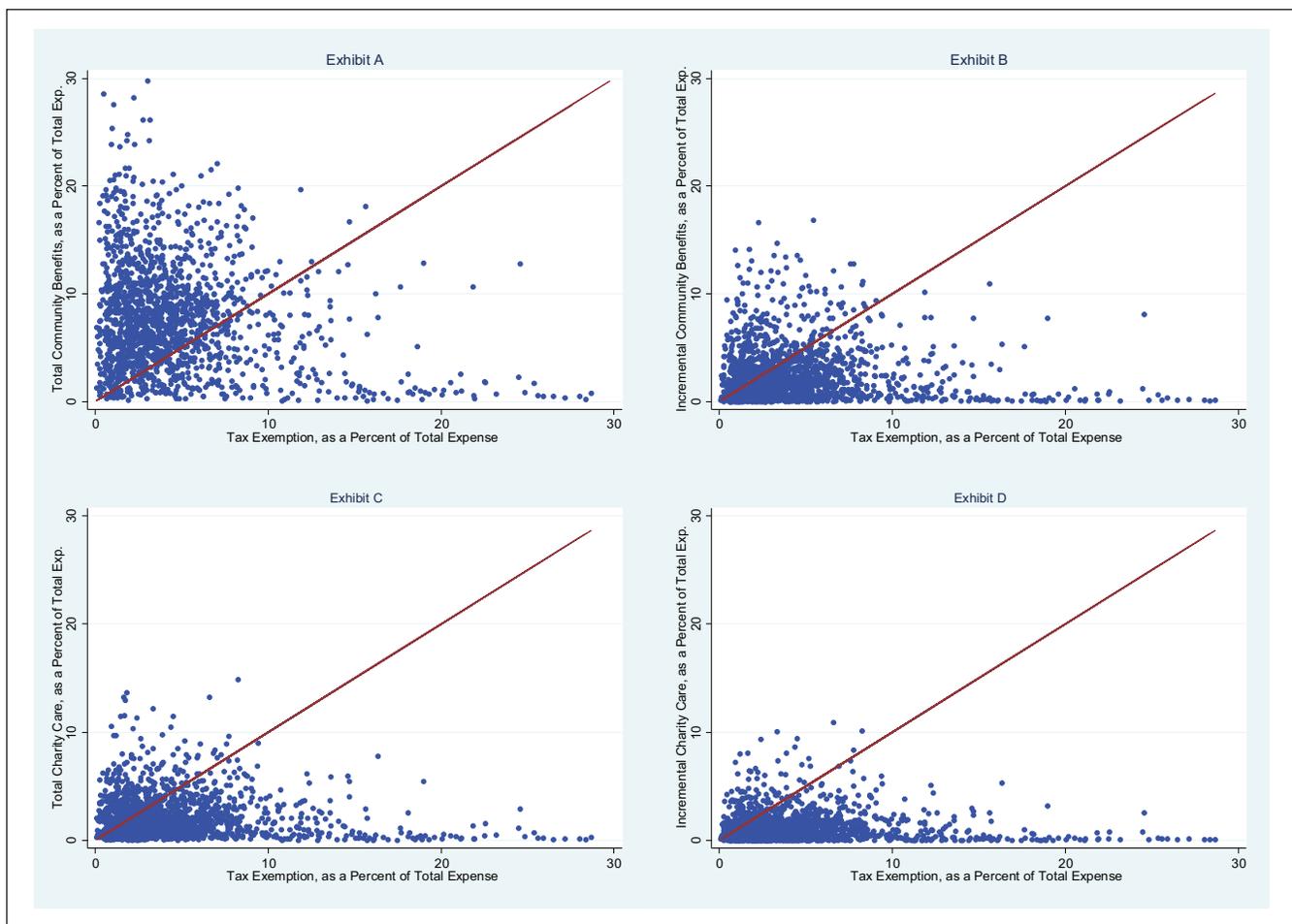
## Examining the Nonprofit Community Benefits Net of the Tax Exemption

We next compare these estimates for the nonprofit community benefits to the value of the tax exemption. We produce estimates of the average difference across hospitals and the proportion of hospitals with community benefits exceeding the value of their tax exemption. We then show scatterplot figures to illustrate the joint distribution of the two amounts across all hospitals. For each of these, we consider various approaches to conceptualize community benefits. We

**Table 3.** Nonprofit Hospitals' Community Benefits Compared With the Tax Exemption in 2012.

	CB – TE, as a percent of total expenses	Proportion with CB > TE
Total CBs minus TE	1.75% (SD = 11.91%) [-95.4% to 48.6%]	74%
Incremental CBs minus TE	-0.16% (SD = 11.30%) [-95.6% to 37.6%]	62%
Total charity care alone minus TE	-3.72% (SD = 10.02%) [-96.6% to 11.8%]	25%
Incremental charity care alone minus TE	-4.20% (SD = 9.89%) [-96.6% to 8.8%]	20%

Note. Standard deviations are shown in parentheses, and the minimum-to-maximum range is shown in brackets. Data are from 1648 nonprofit hospitals in 2012 with information in the Internal Revenue Service 990 Schedule H, Centers for Medicare and Medicaid Service Hospital Cost Reports, and American Hospital Annual Survey. CB = community benefit; TE = tax exemption.



**Figure I.** Nonprofit hospitals' distribution of community benefits versus the tax exemption in 2012.

Note. Figure A's y-axis shows Total Community Benefits, Figure B's y-axis shows Incremental Community Benefits, Figure C's y-axis shows Total Charity Care Alone, and Figure D's y-axis shows Incremental Charity Care Alone. Each Figure's x-axis shows Tax Expenditures. Data are from 1648 nonprofit hospitals in 2012 with information in the IRS 990 Schedule H, Centers for Medicare and Medicaid Service Hospital Cost Reports, and American Hospital Annual Survey.

perform sensitivity analysis to show an upper bound of the full nonprofit community benefits (not just the incremental levels) and a lower bound of just charity care as some of the community benefit measures identified by the IRS may not

be suitable to include in the public “return” for the tax exemption.

Table 3's top 2 rows use a measure of community benefit that include all 8 IRS categories and focus on the distinction between

total community benefits and incremental community benefits. The difference between total community benefits and the value of the tax exemption averages 1.75% of total expenses, with 74% of hospitals providing large enough community benefits to justify their tax exemption. If one instead considers the incremental measure, then this difference averages  $-0.16\%$  of expenses, with 62% of the hospitals providing incremental community benefits which exceed the value of the tax exemption.

Figure 1's scatterplots A and B show the distribution of community benefits versus the value of the tax expenditure for total community benefits and incremental community benefits, respectively. Each blue dot represents a single hospital, and the red line is the  $45^\circ$  line representing community benefits equaling the value of the tax exemption. (The red line is not a line fitted through the scatterplot.) As a result, hospitals to the upper left can be viewed as providing enough community benefits to justify their tax exemption, while hospitals to the lower right can be viewed as not providing enough community benefits to justify their tax exemption. There is considerable variation across hospitals in their community benefits as a percent of expenses and considerable variation across hospitals in their tax benefits as a percent of expenses. Moreover, there is considerable variation across the difference between community benefits and tax benefits, as there is no strong correlation between the hospital's community benefit as percent of expenses to that hospital's value of the tax exemption as a percent of expenses (ie, the scatterplots are not distributed closely around the  $45^\circ$  line).

An important question is whether all 8 categories on the IRS list warrant comparison to the level of tax benefits the nonprofits receive. The largest category is unreimbursed costs from Medicaid comprising 31% of the total incremental community benefits. Because Medicaid payment levels are lower than commercial payment levels and most nonprofits see relatively more Medicaid patients than for-profits see, there is some appeal to including unreimbursed Medicaid costs on the list. However, the level of Medicaid reimbursement is formally determined by state policy; states presumably believe these rates are generally appropriate, though some states may set rates simply to what they believe they can afford. Nevertheless, nonprofits generally agree to accept these rates, and the hospital's choice to accept a Medicaid patient seems to us to likely reflect its belief that Medicaid indeed pays more than marginal costs.

The problem is that the IRS Form 990 focuses on average costs (for reasons which are understandable, given the complexities of actually computing fixed versus marginal costs). These average costs are indeed higher than Medicaid payment levels, but we suspect that the marginal costs of Medicaid patients are lower than Medicaid payments. We therefore believe it is inappropriate to argue that unreimbursed Medicaid costs should be considered the same as charity care. Medicare unreimbursed costs are not considered to be community benefits on the IRS schedule. While data from the AHA has historically shown that Medicaid

payment rates are low compared with Medicare, Medicaid's payment-to-cost ratio has actually been greater than Medicare's payment-to-cost ratio since 2012.<sup>16</sup> If unreimbursed Medicare costs seem illogical as a nonprofit community benefit, then unreimbursed Medicaid costs should also seem illogical. A similar argument about other means-tested programs' payments being set by policy and likely covering marginal costs could be made to justify excluding the "unreimbursed" costs from other means-tested programs from the list of appropriate community benefits.

Given these concerns about quantifying appropriate marginal unreimbursed costs from Medicaid and other means-tested programs, given the ambiguity of which services should be included in the category of subsidized health services which are not means-tested (and the possibility of hospital departments shifting these costs across one another), and given the observation that the remaining 4 community benefit categories are both quite small in magnitude and could arguably benefit the hospital itself as marketing-related efforts, we believe that a comparison which uses charity care alone as the sole community benefit to compare with the value of the tax exemption serves as a reasonable lower bound for community benefits.

Table 3's bottom 2 rows indicate that the difference between the value of charity care alone and the value of the tax exemption averages  $-3.72\%$  of total expenses, and the difference between the value of incremental charity alone and the value of the tax exemption averages  $-4.2\%$ . If one takes this more restrictive view of focusing on charity care, only 25% of nonprofits provide enough total charity to warrant their tax exemption, and only 20% of nonprofits provide enough incremental charity care beyond what for-profits provide to justify their tax exemption. Finally, Figure 1's scatterplots C and D show the distribution of total charity and incremental charity care across nonprofits in relation to the value of their tax exemption; here, too, there appears to be no strong correlation between charity care and the value of the tax exemption.

### Characteristics of Nonprofits With Community Benefits Exceeding the Tax Exclusion

The analyses presented above in Tables 1 through 3 and Figure 1 indicate that there is wide variation across hospitals in community benefits, wide variation in the value of the tax exemption, and wide variation in the difference between the two amounts. Our final set of analyses therefore examines the extent to which this variation across hospitals can be explained by either hospital or market characteristics. Specifically, we examine whether a set of hospital and market characteristics are associated with a nonprofit having its community benefits exceed its tax exclusion by estimating several hospital-level logistic regressions, where we use our 4 different measure of community benefits (ie, total versus

**Table 4.** Characteristics of Hospitals With Community Benefits Exceeding the Tax Exclusion.

	Total community benefits exceed tax exemption	Incremental community benefits exceed tax exemption	Total charity care exceed tax exemption	Incremental charity care exceed tax exemption
Baseline percent with CB > TE	74%	62%	25%	20%
Marginal effect of hospital characteristic				
Under 50 beds (reference)	n/a	n/a	n/a	n/a
50 to 199 beds	-3.3	-3.3	-1.2	-3.0
200 to 499 beds	2.8	-8.1**	-1.2	-5.1*
500 or more beds	7.2	-4.8	-5.6	-8.6*
Member of a system	-16.0***	-1.6	-1.7	5.3***
Church operated	2.0	-0.4	-3.9	-2.9
Teaching hospital	7.0**	3.9	1.5	-0.4
Percent Medicare patients	-0.6	22.6**	18.1*	3.8
Percent Medicaid patients	11.2	31.1***	12.0	15.3**
Has a trauma center	-1.5	3.2	-0.8	3.8**
Obstetrics provided	-1.3	-0.5	-4.5*	-4.2**
Case mix index	-7.3	-6.1	-16.1**	-7.5*
Marginal effect of market characteristic				
Rural area	-5.1	2.2	-4.7	-2.8
Percent nonwhite in county	-0.2**	0.0	0.0	0.0
Percent in poverty in county	0.8*	0.0	0.4	0.0
Percent uninsured in county	0.6	1.7***	1.0**	0.9***
County has public hospital	-5.1	-3.6	-2.8	-3.1
County has FQHC	3.3	2.6	3.0	2.8
Hospital HHI (000s)	0.0	-0.2	-0.1	-0.3
Insurance HHI (000s)	0.8	-2.3*	-0.9	0.9
State malpractice payments	1.0	3.6***	1.8**	3.2***
State indicators included	Yes	Yes	Yes	Yes

Note. Data are from 1648 nonprofit hospitals in 2012 with information in the Internal Revenue Service 990 Schedule H, Centers for Medicare and Medicaid Service Hospital Cost Reports, and American Hospital Annual Survey. CB = community benefit; TE = tax exemption; HHI = Herfindahl-Hirschman index.

\* $P < .10$ . \*\* $P < .05$ . \*\*\* $P < .01$ .

incremental and all 8 IRS categories vs just charity care alone). Some of these characteristics reflect hospital capacity for providing community benefits and profitability of certain services,<sup>17</sup> while other characteristics reflect the community's demand, though we note that our cross-sectional analyses document associations, not causal mechanisms.

The hospital-level characteristics include bed size, system ownership, church affiliation, teaching status, percent Medicare and Medicaid patients, trauma center presence, obstetrics services provided, and case mix index. The market-level characteristics include rural vs urban, percent nonwhite, percent in poverty, percent uninsured, the presence of a public hospital or federally qualified health center (FQHC), insurance and hospital market concentration, and the malpractice environment. Each of the models includes a set of state indicators to control for underlying variation in state tax policy influencing the value of the tax exemption.

Table 4 presents the results from these analyses as marginal effects on the underlying probability that community benefits exceed the value of the tax exemption (ie, a 1-unit change in a given independent variable increases the percentage of

hospitals with community benefits exceeding the value of the tax exemption by X percentage points). While many of the hospital and market characteristics are significant predictors of community benefits exceeding the value of the tax exemption in the different regressions, only a few of the characteristics yield consistent results across the 4 different characterizations of community benefits. Specifically, the hospital characteristics associated with the probability that community benefits exceed foregone taxes are seeing a higher percentage of Medicare and Medicaid patients and not providing obstetrics services; a higher proportion of Medicaid patients presumably directly leads to a larger amount of unreimbursed Medicaid costs, and not providing obstetrics services may perhaps lead to a larger amounts of charity care and/or subsidized health services that are not means-tested. The market characteristics associated with community benefits exceeding foregone taxes are higher county uninsurance rates and higher state malpractice payments per capita. Higher county uninsurance rates likely directly lead to larger amounts of charity care to the uninsured, while the association with higher state malpractice payments is puzzling. Taken together,

the hospital and market characteristics examined here do relatively little to explain the wide variation across hospitals in the difference between community benefits and the tax exemption.

## Discussion

The average direct and indirect benefits of the tax exemption equal 5.87% of total expenses. If one focuses on the incremental community benefits for nonprofits relative to for-profits, the average value of the tax exemption is slightly higher than the average value of the incremental total community benefits of 5.71%.

There is considerable variation across nonprofits, with 62% of nonprofits providing community benefits greater than the tax benefits received. If one considers only the incremental charity care, then only 20% of the nonprofits exceed the value of their tax exemption. The cost of the hospital's financial assistance policy is what the IRS defines as the hospital's charity care on Schedule H. Sayah Nikpay and John Ayanian examine compliance in 2012 with these provisions and observe that while almost all have established financial assistance policies, just under half notified patients of their eligibility, and only 11% reported conducting their community health needs assessment during the first of their 3-year window to do so.<sup>18</sup>

Our analyses have some limitations. We were only able to successfully merge data from the 3 sources (ie, IRS, CMS-HCR, and AHA) for about two-thirds of all nonprofit hospitals, and we had to disaggregate the IRS data reported by some systems into their individual hospitals comprising the system. Moreover, close-yet-different magnitudes for similar measures of community benefits between the IRS and CMS-HCR (eg, charity of 2.15% in IRS vs 2.74% in CMS-HCR, and unreimbursed Medicaid of 2.97% in IRS vs 3.28% in CMS-HCR) raise questions about the precision of the IRS 990 data (and/or the CMS-HCR data), which in turn raise concerns about both the magnitudes and distribution of data reported here. And the lack of analogous measures of community benefits from the CMS-HCR data add uncertainty to the estimates for certain incremental community benefits for nonprofits relative to for-profits.

Another limitation relates to the timing of our analyses. These data are for 2012, and thus reflect the community benefits provided by nonprofits prior to the ACA's 2014 insurance expansions. The Marketplace subsidies and state Medicaid expansions (where they occurred) clearly reduced the number of uninsured and, in turn, likely reduced the amount of hospital charity care (yet also likely increased the amount of unreimbursed Medicaid costs).<sup>19,20</sup> As a result, these 2012 estimates for charity care are likely to be larger than those we will eventually see with post-ACA data, and thus even fewer hospitals than those reported here might currently have community benefits large enough to justify their tax exemption.

Historically, policymakers have not been in uniform agreement that nonprofits must provide charity care commensurate with the value of the tax exemption.<sup>21</sup> The IRS ruling in 1969 that created the community benefit standard is a reflection of this lack of consensus. The community benefit standard now allows for the consideration of other activities to satisfy the requirement, but the recent provisions place much of the emphasis on nonprofits providing care to indigent persons unable to pay.

Taken as a whole, our analyses demonstrate that the provision of all community benefits, charity care alone, and the value of the tax exemption vary substantially across nonprofits. Moreover, neither combined community benefits nor charity care alone (whether measured as totals or incremental amounts relative to for-profits) is strongly correlated with the value of the tax exemption, and few hospital or market characteristics consistently explain the difference between community benefits and the tax exemption. For policymakers who desire to motivate hospitals to provide adequate community benefits and, in particular, sufficient charity care to underserved populations, the tax exemption currently appears to be a rather blunt instrument, as many nonprofits benefit greatly from the tax exemption yet provide relatively few community benefits. Policymakers could consider being more explicit in specifying certain levels of community benefits from nonprofits as a requirement and be willing to rescind nonprofit status to those hospitals deemed to be providing insufficient community benefits.

## Appendix A

Definitions and Instructions Provided to Hospitals on Internal Revenue Service Form 990's Schedule H.

**Charity Care (Financial Assistance at Cost):** "Financial assistance includes free or discounted health services provided to persons who meet the organization's criteria for financial assistance and are unable to pay for all or a portion of the services. Financial assistance does not include: bad debt or uncollectible charges that the organization recorded as revenue but wrote off due to a patient's failure to pay, or the cost of providing such care to such patients; the difference between the cost of care provided under Medicaid or other means-tested government programs or under Medicare and the revenue derived therefrom; self-pay or prompt pay discounts; or contractual adjustments with any third-party payors."

**Unreimbursed Costs From Medicaid:** "Worksheet 3 can be used to report the cost of Medicaid," which "means the United States health program for individuals and families with low incomes and resources."

**Unreimbursed Costs From Other Means-Tested Programs:** "Worksheet 3 can be used to report the cost of other means-tested government programs," which "means government-sponsored health programs where eligibility for benefits or coverage is determined by income or assets. Examples include: The State Children's Health Insurance Program (SCHIP), a United States federal government program that gives funds to states, in order to provide health insurance to families with children; and Other federal, state, or local health care programs."

**Community Health Improvement Services and Operations:** "Community health improvement services means activities or programs, subsidized by the health care organization, carried out or supported for the express purpose of improving community health. Such services do not generate inpatient or outpatient revenue, although there may be a nominal patient fee or sliding scale fee for these services.

Community benefit operations means activities associated with conducting community health needs assessments, community benefit program administration, and the organization's activities associated with fundraising or grant-writing for community benefit programs."

**Health Professions Education:** "Health professions education means educational programs that result in a degree, certificate, or training necessary to be licensed to practice as a health professional, as required by state law, or continuing education necessary to retain state license or certification by a board in the individual's health profession specialty. It does not include education or training programs available exclusively to the organization's employees and medical staff or scholarships provided to those individuals. However, it does include education programs if the primary purpose of such programs is to educate health professionals in the broader community. Costs for medical residents and interns can be included, even if they are considered 'employees' for purposes of Form W-2, Wage and Tax Statement."

**Subsidized Health Services That Are Not Means-Tested:** "Subsidized health services means clinical services provided despite a financial loss to the organization. The financial loss is measured after removing losses associated with bad debt, financial assistance, Medicaid, and other means-tested government programs. A service meets an identified community need if it is reasonable to conclude that if the organization no longer offered the service, the service would be unavailable in the community, the community's capacity to provide the service would be below the community's need, or the service would become the responsibility of government or another tax-exempt organization."

**Unfunded Research:** "Research means any study or investigation the goal of which is to generate increased generalizable knowledge made available to the public (for example: knowledge about underlying biological mechanisms of health and disease, natural processes, or principles affecting health or illness; evaluation of safety and efficacy of interventions for disease such as clinical trials and studies of therapeutic protocols; laboratory-based studies; epidemiology, health outcomes, and effectiveness; behavioral or sociological studies related to health, delivery of care, or prevention; studies related to changes in the health care delivery system; and communication of findings and observations, including publication in a medical journal.) The organization can include the cost of internally funded research it conducts, as well as the cost of research it conducts funded by a tax-exempt or government entity."

**Cash and In-Kind Contributions for Community Benefit:** "Cash and in-kind contributions means contributions made by the organization to health care organizations and other community groups restricted, in writing, to one or more of the community benefit activities described [above]. In-kind contributions include the cost of staff hours donated by the organization to the community while on the organization's payroll, indirect cost of space donated to tax-exempt community groups, and the financial value of donated food, equipment, and supplies."

## Appendix B

Hospitals' Net Community Benefit Expense as a Percent of Total Expenses in 2012.

	CMS-HCR value for nonprofit	CMS-HCR value for profit
Charity care	2.74% (SD = 1.47%) [0.4% to 6.6%]	0.60% (SD = 0.65%) [0.0% to 3.4%]
Unreimbursed costs from Medicaid	3.28% (SD = 1.21%) [0.6% to 5.79%]	1.38% (SD = 1.23%) [0.0% to 4.1%]
Unreimbursed costs from other means-tested programs	0.88% (SD = 1.13%) [0.0% to 6.6%]	0.10% (SD = 0.24%) [0.0% to 1.2%]
Total costs of residents and interns	1.71% (SD = 0.75%) [0.2% to 3.6%]	0.28% (SD = 0.44%) [0.0% to 2.8%]
Research (funded and unfunded)	0.70% (SD = 0.86%) [0.0% to 4.4%]	0.01% (SD = 0.01%) [0.0% to 0.06%]

Note. Standard deviations (denoted by "SD") are shown in parentheses, and the minimum-to-maximum range is shown in brackets. Data are from 1,648 nonprofit hospitals and 1,317 for-profit hospitals in 2012 with information in the CMS-HCR and American Hospital Annual Survey. CMS = Centers for Medicare and Medicaid Service; HCR = hospital cost report.

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